State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT

CITY OF EAST CHICAGO
NEW WATER TREATMENT PLANT
SRF PROJECT DW199 110 02 and DW199 110 03

DATE: December 5, 2008

COMMENTS MUST BE RECEIVED BY: January 5, 2008

I. INTRODUCTION

The above entity has applied to the Drinking Water State Revolving Loan Fund (SRF) for a loan to finance all or part of the drinking water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Drinking Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:	City of East Chicago 5201 Indianapolis Boulevard East Chicago, IN. 46312
SRF Project Number:	DW 199 110 02 and 199 110 03
Authorized Representative:	Al Velez Director of Utilities

II. PROJECT LOCATION

East Chicago is located in North Township in Lake County. East Chicago's existing service area is bounded by Lake Michigan to the north, Whiting to the northwest, Gary to the southeast and Hammond to the west. The study area and project area for the proposed new water treatment plant are located in the northern part of East Chicago, generally bounded by Michigan Avenue on the northwest, Guthrie Street on the southwest, Washington Street on the southeast and Cline Avenue on the northeast (Figure 1). The area is located in the north central part of section 22, Township 37N, Range 9W in the Whiting Quadrangle. The existing facilities and the proposed project area are shown in Figures 2 and 3 respectively.

III. PROJECT NEED AND PURPOSE

The Lake Michigan raw water intake and pump station were constructed in 1929 with the original water treatment plant. The city constructed a new water filtration plant in 1964 and significantly upgraded the raw water intake and pump station. The original design capacity of that plant was 24 million gallons per day (MGD). Currently, the plant produces approximately 16 MGD of treated water during the summer and 13 MGD during the winter. The city has made only minor upgrades to the 1964 facility. The physical structure and important equipment at the plant have reached the end of their design life, and repair parts are difficult to find at best. As the building and major treatment components deteriorate, the city is concerned about operational reliability.

IV. PROJECT DESCRIPTION

The proposed water treatment plant will be a pressure membrane filtration plant with a minimum design capacity of 16 MGD in the summer and 14.5 MGD in the winter. Provisions will be made for expansion to 20 MGD and the hydraulic capacity will be designed to allow for 30 MGD, which is the maximum amount of raw water that can be

pumped from Lake Michigan. The new facility will continue to use the existing raw water intakes. The city will use microtunnelling to extend the 54-inch raw water line from the existing treatment plant raw water pump station to a new raw water pump station at the proposed new treatment plant south of Cline Avenue. The new raw water pump station will be sized for 22.3 MGD with a maximum future capacity of 33.4 MGD. Treated water will be stored in a 4.0 million gallon pre-stressed concrete ground storage tank. The city will build a high service pumping station with a rated firm capacity of 20 MGD with provisions to expand to 30 MGD. Settled solids and sludge removed during the pre-treatment process, as well as solids removed during filter backwashing are known as residuals. These residual flows will be sent to two concrete tanks and coagulant will be added to enhance settling; the flows will be treated using inclined plate settlers, and the settled solids will be discharged to the sanitary sewer system and sent to the city's wastewater treatment plant, which has capacity to treat the flows; the clarified supernatant will be recycled to the head of the plant.

V. Estimated Project Costs, Affordability and Funding

A. Selected Plan Estimated Cost Summary

Construction Costs:

Raw Water Pump Station	$ 5,100,000
Flocculation	500,000
Filtration	10,000,000
Residuals Settling Tanks	500,000
Residuals Discharge	1,400,000
Disinfection	700,000
Ground Storage	2,900,000
High Service Pumping	5,400,000
Administration Facilities	900,000
Lab Facility	600,000
Generator	1,000,000
Tunneling	3,100,000
Site Work	2,100,000
Chemical Feed and Storage	3,000,000
Security, Fencing, Miscellaneous Items	1,900,000
SCADA	1,200,000
Construction Subtotal	$40,300,000
Contingency	4,000,000
	$44,300,000

Non-Construction Costs

Preliminary Engineering	$ 2,100,000
Final Design Engineering	3,800,000
Construction Engineering Services	3,800,000
Administration, Legal, etc	400,000
Non-Construction Cost Subtotal	$10,100,000
Total Estimated Project Costs	**$54,400,000**

B. East Chicago will finance the project with a 20-year loan from the State Revolving Fund Loan (SRF) program for $33,000,000 at an interest rate to be determined at the time of loan closing. Other funding sources will make up the difference between the total project cost and the SRF loan amount: SRF Loan Number DW 199 110 02, a Army Corps of Engineers Grant, Tax Increment Funds and Gaming Revenue. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

No Action: The no-action alternative for the water treatment plant improvements keep the existing plant operating with old equipment in a deteriorated building; the city can meet in the existing manner of not being able to provide a reliable treated water supply. Therefore, this alternative was rejected.

Optimize Operation of Existing Plant: The city currently practices this alternative, but due to deterioration of equipment and the building, this alternative is not feasible for continued operation.

Rehabilitate the Existing System: This is not a financially viable solution, since the building infrastructure and equipment are severely deteriorated; in addition, rehabilitation would not position the city to meet emerging regulatory requirements.

Construct New Treatment Plant: Constructing a new plant is the cost-effective solution and will position the city to respond to emerging regulatory requirements without major system renovations. The proposed project will address the treatment plant reliability problems. This is the selected plan.

Within the selected alternative of constructing a new plant, the city also evaluated alternatives for the new plant's components, such as type of raw water station pumps, and methods for flocculation & clarification, filtration, disinfection, ground storage, etc.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Undisturbed/Disturbed Land: The project will occur on land which has been significantly disturbed by previous construction activity. Industry and residential houses and apartment buildings have most recently occupied the new treatment plant site.

Structural Resources: (Figure 4): The proposed project will not affect historic sites or the nearby Indiana Harbor Commercial Historic District. Audible, atmospheric or visual effects of the project construction and operation will be temporary. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Wetlands and Surface Water: The proposed project will not adversely affect any surface waters or wetlands.

100-Year Floodplain (Figure 5): The proposed project will not occur in the 100-year floodplain.

Groundwater: The proposed project will not negatively affect a sole source aquifer or other groundwater resources.

Plants and Animals: The proposed project will not affect endangered plants or animals.

Prime Farmland: The project will not affect prime/unique farmland.

Air Quality: Air quality will be temporarily impacted by construction activities, including vehicle exhaust and dust.

Open Space and Recreational Opportunities: The proposed project will neither create nor destroy open space and recreational opportunities.

Lake Michigan Coastal Management Zone: The project is located within the Lake Michigan Coastal Zone. The proposed activity complies with Indiana's approved Coastal Management Program, administered by the Indiana Department of Natural Resources (IDNR), and will be conducted in a manner consistent with the program. The project will not affect the Lake Michigan watershed.

The proposed project will not affect National Natural Landmarks.

B. Indirect Impacts

The city's Preliminary Engineering Report (PER) states: *The City, through the authority of its Council, planning commission, or other means will ensure the future development, as well as future distribution system or treatment works projects connecting to SRF funded facilities, will not adversely impact wetlands, forested areas, steep slopes, 100-year floodplains, archaeological/historical/structural resources, or other sensitive environmental resources. The City will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

The IDNR Coastal Management Program has stated in electronic correspondence dated July 2 and July 8, 2008: *As [the project] is on a previously disturbed site, outside of a flood plain, uses existing [intake] water crib and piping, and does not impact any [endangered, threatened or rare] species there is no reason why it would violate state law....It appears that by moving the water treatment plant more inland that additional area adjacent to Lake Michigan would be opened for presumably public access and lake dependent uses. If that is the case it is in keeping with the Marquette Plan principles and we support the initiative.*

As of this time there are no Federal Permits pending for the project – that we are aware of, and if the project requires any it would trigger a Consistency Review at that time. The project does not appear to require any state regulatory review included as part of a Federal Consistency determination. Please note this does not relieve the applicant from

seeking appropriate state, federal, or local permits to conduct the work. The purpose of the Lake Michigan Coastal Program is to support coordination and partnerships among local, state and federal agencies and local organizations to preserve, protect, restore, and where possible, develop coastal resources in Indiana's Lake Michigan watershed. The Lake Michigan Coastal Program is based on Indiana's existing laws.

The Natural Resources Conservation Service, in correspondence dated April 7, 2008, noted that the project will not cause a conversion of prime farmland.

This document serves as the first notice to the U.S. Fish and Wildlife Service, the IDNR Environmental Unit and the IDNR Division of Historic Preservation and Archaeology.

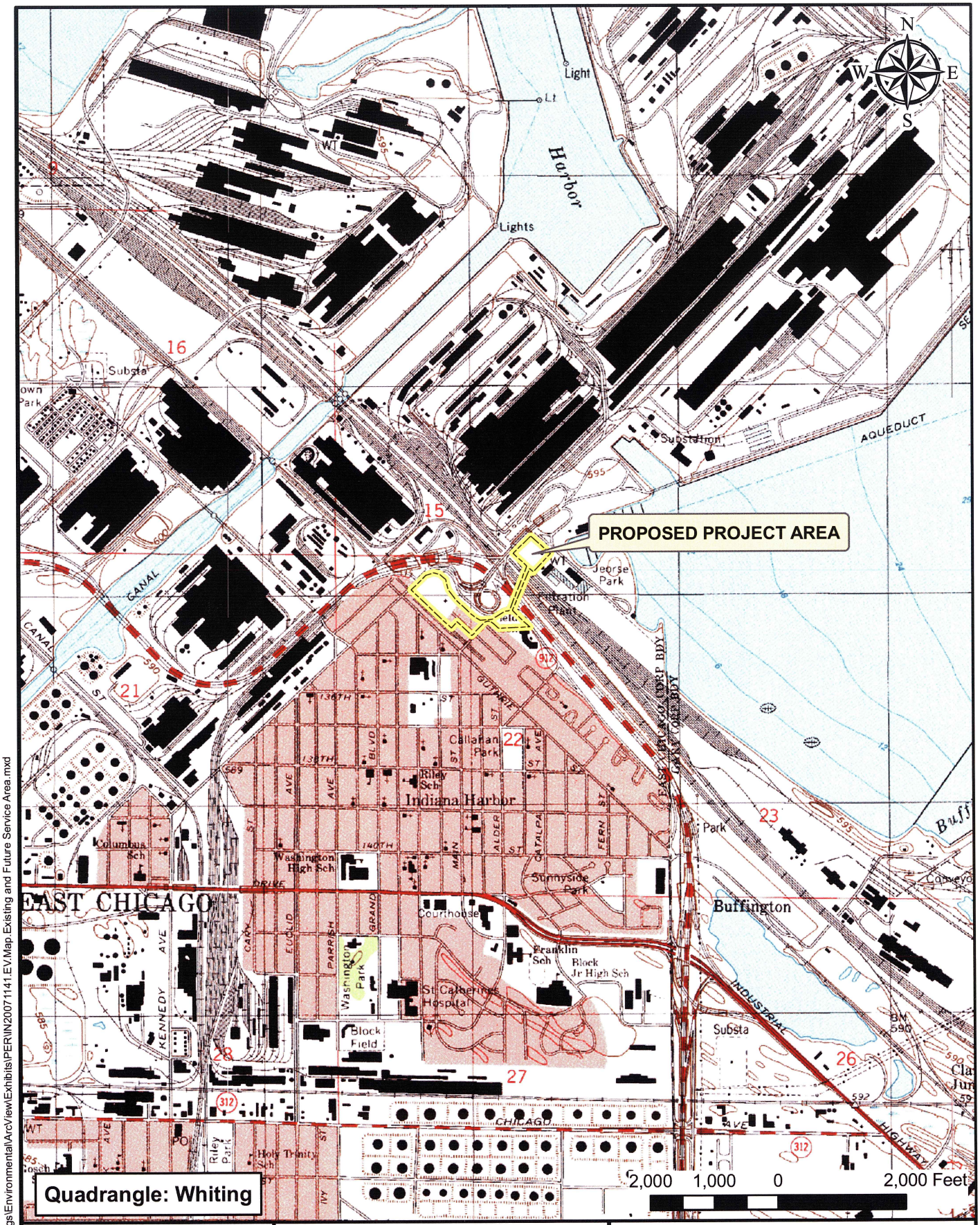
VIII. MITIGATION MEASURES

The city's PER states: *Any mitigation measures cited in comment letters from IDNR, US Fish and Wildlife Service will be implemented. The following additional practices and measures will be implemented into the project:*

- *The project plant and layout will be designed to fit the local topography and soil conditions.*
- *Natural vegetation will be retained whenever feasible, and when appropriate, land grading and excavating will be kept to the right-of-way and to a minimum in order to reduce the possibility of creating excessive runoff and erosion problems.*
- *Appropriate structural or agronomic practices to control runoff and sedimentation will be provided during and after construction.*
- *Drainage systems will be stabilized as early as possible to avoid sedimentation problems.*
- *Surface and subsurface drainage patterns will be restored as early as possible.*
- *Construction entrances, roadways and parking lots will be stabilized as soon as possible by means of stone pads or paving.*
- *Construction activities will be scheduled for the dry season in order to avoid excessive wet conditions.*
- *Construction activities...will not be started until a firm schedule is known and can be effectively coordinated with the appropriate soil erosion control measures.*
- *The plant will be consistent will applicable state and local ordinances.*
- *An erosion and sedimentation control plan will be developed and implemented in accordance with United States Soil Conservation Services.*
- *No chemicals will be used for dust control.*
- *Exposure of acid soils will be avoided.*
- *Construction in or adjacent to roadways will be scheduled to avoid peak rush hours or seasons.*
- *Exposed soils and unpaved roadways will be periodically wetted to reduce the suspension of dust and airborne contaminants.*
- *The number and size of construction equipment and vehicles used will be minimized to reduce emissions.*

IX. PUBLIC PARTICIPATION

A properly noticed Public Hearing was held on December 28, 2006 at 10:00 am in East Chicago City Hall at 4525 Indianapolis Boulevard. Some attendees expressed concern about public participation in the utility board's decisions regarding the new plant. Due to changes in the project, a second Public Hearing was held on July 24, 2008 at 5:30 pm in the City Hall. There were no objections to the project at the public hearing. There were no adverse written comments received by the utility during the 5-day comment period following the hearing.



P:\IN2007\1141\D. Drawings\Environmental\ArcView\Exhibits\PERIN20071141.EV.Map.Existing and Future Service Area.mxd

STRUCTUREPOINT

BLACK & VEATCH
Building a world of difference.

Existing & 20 Year Service Areas

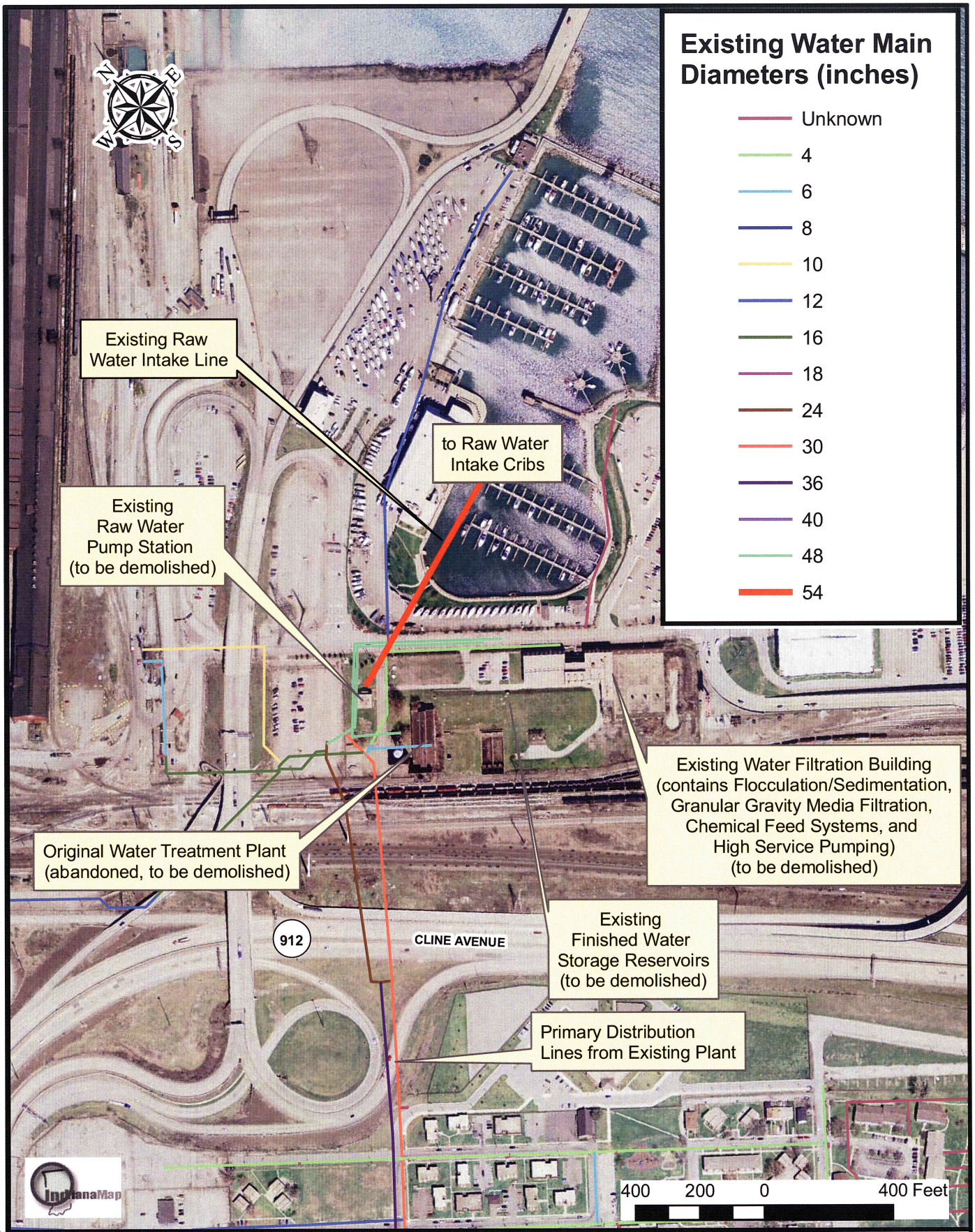
Applicant: City of East Chicago
Department of Water Works
400 East Chicago Avenue
East Chicago, Indiana 46312

East Chicago Water Treatment Plant

Location: East Chicago
Township: North
County: Lake
State: Indiana

Date: 03/19/2008

FIGURE 1



P:\IN\2007\1141\D. Drawings\Environmental\ArcView\Exhibits\PER\IN20071141.EV.Map.Project Area.mxd

AMERICAN STRUCTUREPOINT INC.

BLACK & VEATCH Building a world of difference.

Existing System

Applicant: City of East Chicago
Department of Water Works
400 East Chicago Avenue
East Chicago, Indiana 46312

East Chicago Water Treatment Plant

Location: East Chicago
Township: North
County: Lake
State: Indiana

Date: 03/19/2008

FIGURE 2

P:\IN\2007\11411\D. Drawin ronmental\ArcView\Exhibits\PER\IN20071141.EV.Map.Project Area.mxd

AMERICAN STRUCTUREPOINT INC
www.structurepoint.com

BLACK & VEATCH Building a world of difference.

Existing WTP and Proposed WTP

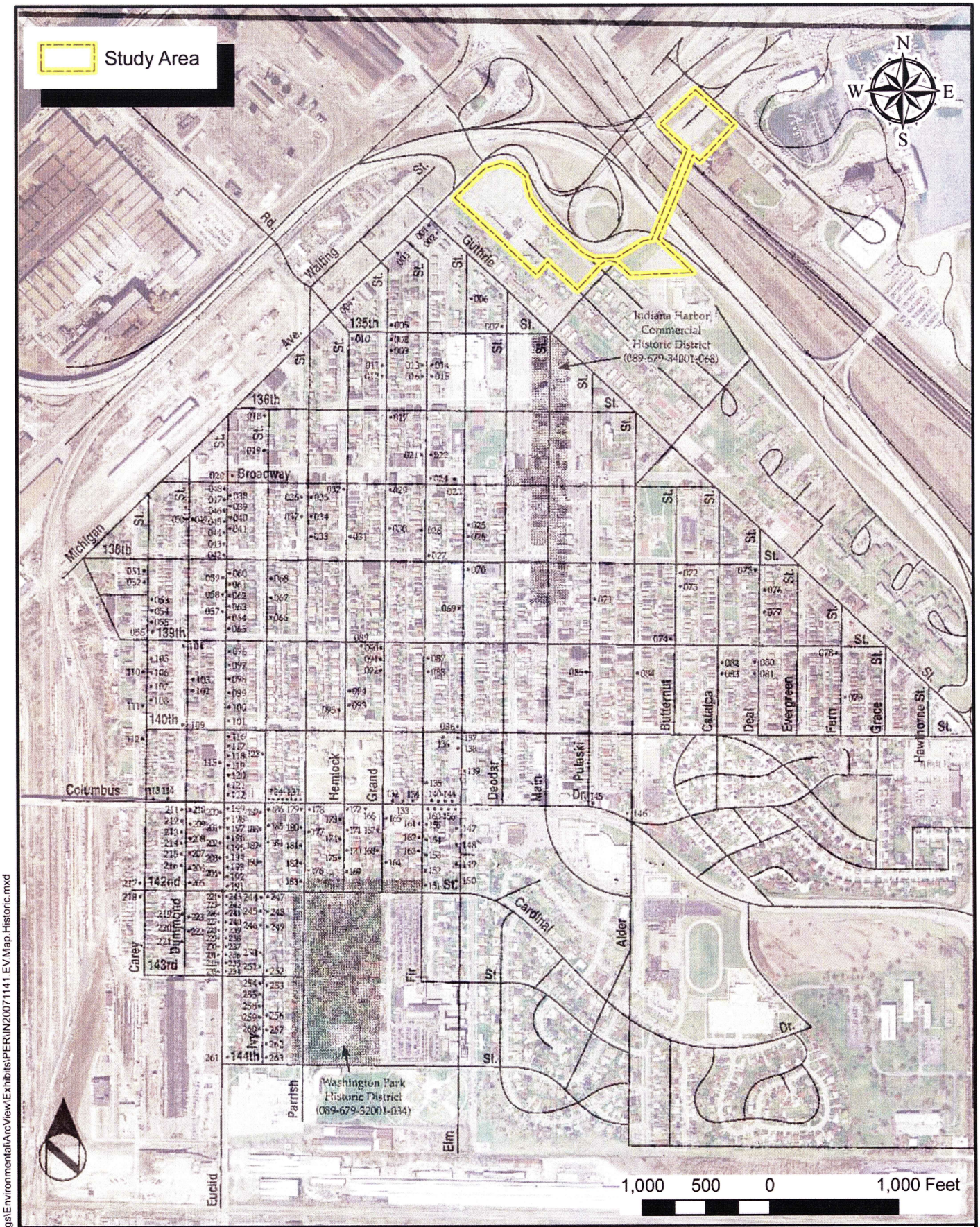
Applicant: City of East Chicago
Department of Water Works
400 East Chicago Avenue
East Chicago, Indiana 46312

East Chicago Water Treatment Plant

Location: East Chicago
Township: North
County: Lake
State: Indiana

Date: 03/25/2008 revised 7-1-72 008

FIGURE 3



P:\IN2007\11411\D. Drawings\Environmental\ArcView\Exhibits\PER\IN20071141.EV.Map.Historic.mxd

STRUCTUREPOINT

BLACK & VEATCH
Building a world of difference.

Overlay of Indiana Harbor Scattered Sites (33001-263)

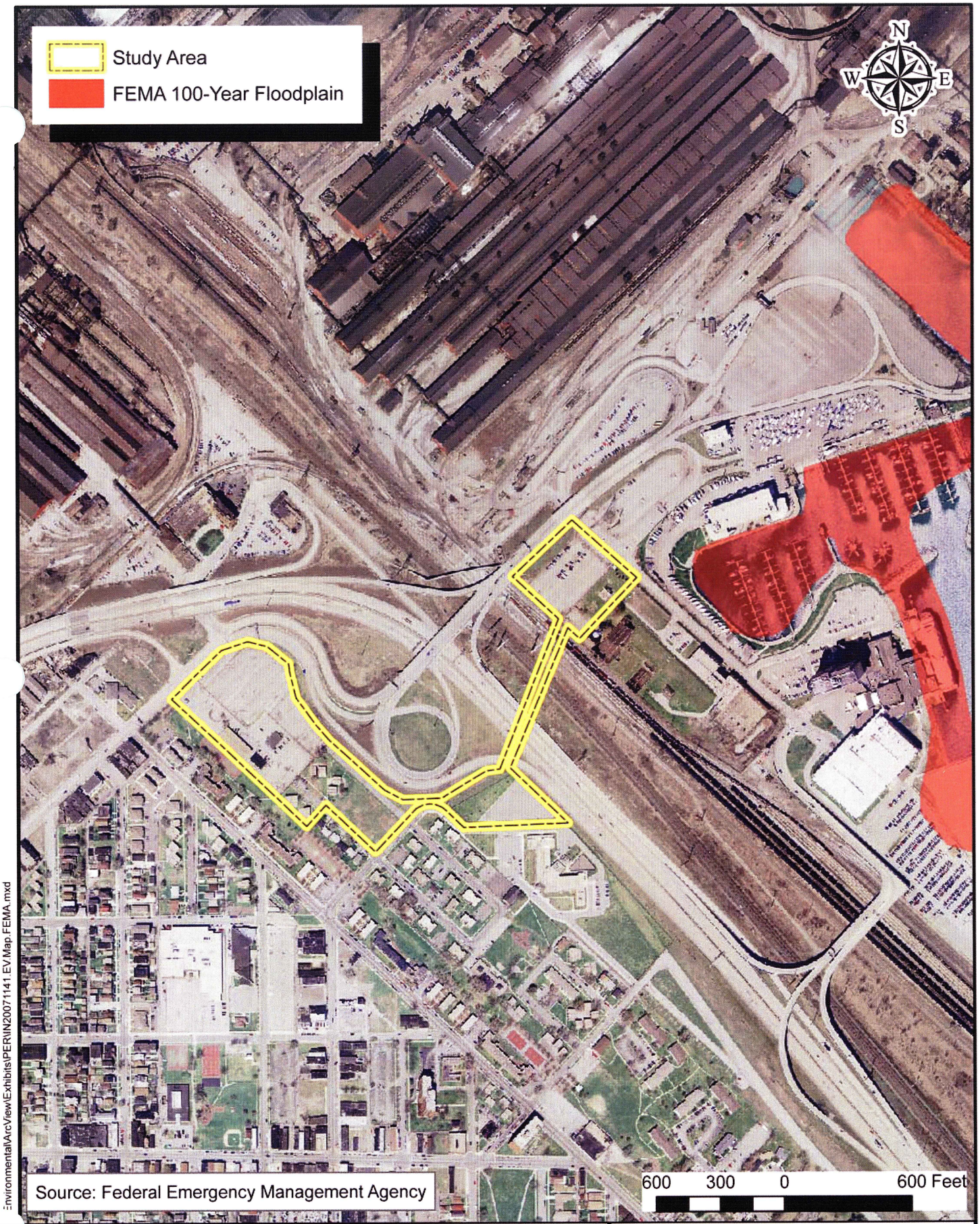
Applicant: City of East Chicago
Department of Water Works
400 East Chicago Avenue
East Chicago, Indiana 46312

East Chicago Water Treatment Plant

Location: East Chicago
Township: North
County: Lake
State: Indiana

Date: 03/25/2008

FIGURE 4



100-Year Floodplain Map

Applicant: City of East Chicago
Department of Water Works
400 East Chicago Avenue
East Chicago, Indiana 46312

East Chicago Water Treatment Plant

Location: East Chicago
Township: North
County: Lake
State: Indiana

Date: ~~03/10/2008~~ revised July 6 DP

FIGURE 5

AMERICAN STRUCTUREPOINT INC.
www.structurepoint.com
©2007-2009 American Structurepoint, Inc.

BLACK & VEATCH
Building a world of difference.

P:\IN\2007\11141\D... Environmental\ArcView\Exhibits\PERIN\20071141.EV.Map.FEMA.mxd